

20060122.ba v03_n884.bam.20060122

>From ???@??? Sun Jan 22 11:08:55 2006 -0600
Date: Sun, 22 Jan 2006 11:08:16 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 3884
Message-Id: <20060122170435.25070409A2@srvr1.theporch.com>

BOATANCHORS Digest 3884

Topics covered in this issue include:

- 1) ADMINISTRIVIA: Over Quoting
by listown@nanniandjack.com (Mail List Owner)
- 2) WTB: Collins 51J-4 Manual
by "Thomas L. Chirhart" <sparks@codepoets.com>
- 3) Feedback BC-348Q - Help Please
by <mike46@cwjamaica.com>
- 4) Re: Feedback BC-348Q - Help Please
by David Stinson <arc5@ix.netcom.com>
- 5) Modern spiral-cuts fail near-short?
by stuck in 50s <polepeeg@ba-watch.org>
- 6) Changing A Tank to a New F: Is This Correct?
by David Stinson <arc5@ix.netcom.com>
- 7) Re: Gen X ers, off subject but closer to our lives than I like to think!
by Tom Norris <r390a@bellsouth.net>
- 8) Re: [Milsurplus] Tube Purge
by William Donzelli <aw288@osfn.org>
- 9) Re: Changing A Tank to a New F: Is This Correct?
by "Tom Rauch" <w8ji@contesting.com>
- 10) Re: Gen X ers, off subject but closer to our lives than I like to think!
by "J.D. Mac Aulay, WQ8U" <jmac6235@yahoo.com>
- 11) Re: Really Weird TR-4C Problem
by Edward Knobloch <k4pf@juno.com>
- 12) Re: Changing A Tank to a New F: Is This Correct?
by "Brian Clarke" <brianclarke01@optusnet.com.au>
- 13) Tank ckt. gymnastics
by stuck in 50s <polepeeg@ba-watch.org>
- 14) Re: Changing A Tank to a New F: Is This Correct?
by David Stinson <arc5@ix.netcom.com>
- 15) Re: Gen X ers, off subject but closer to our lives than I like to think!
by "Herbert M. Rosenthal" <herbrose@comcast.net>
- 16) Re: Gen X ers, off subject but closer to our lives than I like to think!
by john <johnmb@nc.rr.com>
- 17) Re: Gen X ers, off subject but closer to our lives than I like to

think!

by David Hollander <n7rk@cox.net>

18) Re: Changing A Tank to a New F: Is This Correct?

by "Tom Rauch" <w8ji@contesting.com>

19) Re: Tank ckt. gymnastics

by "Tom Rauch" <w8ji@contesting.com>

20) Re: Changing A Tank to a New F: Is This Correct?

by "Tom Rauch" <w8ji@contesting.com>

From: listtown@nanniandjack.com (Mail List Owner)

To: Old Tube Radios <boatanchors@theporch.com>

Subject: ADMINISTRIVIA: Over Quoting

Date: Sat, 21 Jan 2006 11:15:01 -0800 (PST)

Message-Id: <20060121191502.781CD1401F@osr506.nanniandjack.com>

Gang-

Apparently the gentle nudge and suggestion approach to the issue of improving the quality of posts to the BoatAnchors list, and maintaining our excellent (and high) signal to noise ratio is falling on DEAF EYES!

PLEASE READ THIS AND SAVE IT BECAUSE IT IS IMPORTANT!!!

The list culture is to include only those portions of a prior post that are required to maintain the context of your comments. We have always tried to reduce the amount of "chaff" on the list, and this is one good way.

In private mail between you, a subscriber, and me, as list manager, I really don't care one way or the other, but when posting to the list, there are at least two issues of concern:

1) the increased bandwidth from including extra text.

With the trial subscriptions and full members, the number of copies of each post mailed out change the impact of each extra word so that each single character becomes 1,000 characters of mail!

2) by not editing out included text, it sends a not at all subtle message to the list, that the poster considers his/her own time required to merely swipe his mouse across the text and tap the delete key, to be more valuable than the collective time and energy of the 600-700 readers on the list... not exactly a "positive" message! ;^)

This isn't rocket science... you place the pointer at the top of the message you are including *parts* of, and click-drag to where you need to include, and then hit the backspace or delete key... painless, easy, quick, and very helpful to the list.

PLEASE begin to pay attention to this... those who consistently can not be bothered to be considerate of the list will forfeit posting privileges and risk not being invited back for membership.

Treat the list as a symposium. In such an environment, with 600 others attending who have paid to be there, it is unlikely you would repeat someone else's portion of a conversation in its entirety as part of your own remarks... it would become very tedious, very quickly, if you did... especially if you repeated even the closing signature block of the previous message.

Thanks for your understanding and help in making the boatanchors list have the highest signal to noise on the InterNet.

--

73

Jack, W4KH/Mobile - - - BoatAnchor Mailing List Owner - - -
listown@nanniandjack.com - "Plus ca change, plus c'est la meme chose"

"Il n'y a que les idiots qui ne changent jamais d'idee"

Sat Jan 21 11:15:01 PST 2006

From: "Thomas L. Chirhart" <sparks@codepoets.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: WTB: Collins 51J-4 Manual
Date: Sat, 21 Jan 2006 14:42:17 -0500
Message-ID: <000001c61ec2\$ca5366f0\$7001a8c0@warnerp93v1mse>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="-----=_NextPart_000_0001_01C61E98.E17D5EF0"

This is a multi-part message in MIME format.

-----=_NextPart_000_0001_01C61E98.E17D5EF0
Content-Type: text/plain;
charset="us-ascii"
Content-Transfer-Encoding: 7bit

I'm looking for an original 51J-4 manual. Thanks K4NCG

-----=_NextPart_000_0001_01C61E98.E17D5EF0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

* * * * *
* ---REMAINDER OF MESSAGE TRUNCATED--- *
* This post contains a forbidden message format *
* (such as an attached file, a v-card, HTML formatting) *

* Mail Lists at theporch.com only accept PLAIN TEXT *
* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *

-----=_NextPart_000_0001_01C61E98.E17D5EF0--

From: <mike46@cwjamaica.com>
Subject: Feedback BC-348Q - Help Please
To: Old Tube Radios <boatanchors@theporch.com>
Date: Sat, 21 Jan 2006 17:59:28 -0500
Message-ID: <web-19820164@cwjamaica.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="ISO-8859-1"; format="flowed"
Content-Transfer-Encoding: 8bit

When the volume control is about 3/4's or more advanced a squeal is heard, hooking up an audio generator ahead of the audio stage produces the same effect by varying the generator output. When using the radio with the volume control below the oscillation point only strong stations are received and at less than normal volume. The feedback is a lot less with AVC than with MVC. I haven't checked voltages yet.

Ideas?

Mike VE7MMH

Date: Sat, 21 Jan 2006 17:08:21 -0600
From: David Stinson <arc5@ix.netcom.com>
Subject: Re: Feedback BC-348Q - Help Please
To: Old Tube Radios <boatanchors@theporch.com>
Cc: Old Tube Radios <boatanchors@theporch.com>
Message-id: <43D2BEE5.3050509@ix.netcom.com>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii; format=flowed
Content-transfer-encoding: 7bit

Do you have the B- grounded or floating?

mike46@cwjamaica.com wrote:

> When the volume control is about 3/4's or more advanced a squeal is
> heard, hooking up an audio generator ahead of the audio stage produces
> the same effect by varying the generator output. When using the radio

> with the volume control below the oscillation point only strong stations
> are received and at less than normal volume. The feedback is a lot less
> with AVC than with MVC. I haven't checked voltages yet.

Date: Sat, 21 Jan 2006 18:18:22 -0500 (EST)
From: stuck in 50s <polepeeg@ba-watch.org>
Message-Id: <200601212318.k0LNIMTJ015955@fracas.netboobie.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Modern spiral-cuts fail near-short?

Have a 1w composition-size ceramic-body thing fm a switcher. It reads
39K per color code but has badly overheated & shows 90 ohms on vom

Anyone ever seen such?

'rm

Date: Sat, 21 Jan 2006 17:42:15 -0600
From: David Stinson <arc5@ix.netcom.com>
Subject: Changing A Tank to a New F: Is This Correct?
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <43D2C6D7.9090306@ix.netcom.com>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii; format=flowed
Content-transfer-encoding: 7bit

Looking to change a tank circuit used by a 6AQ5
from resonance at 20 MHz to 3.8 MHz.
Are these the right steps?

20 MHz tank capacitor = 50 pF
20 MHz tank inductor = about 1.25 uH

Calculating capacitor Xc:
 $1 \text{ (over)} 6.28 \times 20 \times .00005 = 159 \text{ ohms}$

Calculating inductor Xl:
 $6.28 \times 20 \times 1.25 = 157 \text{ ohms (close enough)}$

Calculating new capacitor
that will do Xc about 159 ohms at 3.8 MHz:
 $1 \text{ (over)} 6.28 \times 3.8 \times .00027 = 155 \text{ Ohms} = 270 \text{ pF}$

Calculationg new inductor
that will resonate with Xl of about 155 ohms at 3.8 MHz:
 $155 / 6.28 \times 3.8 = 6.5 \text{ uH.}$

So- my new tank is 270 pF across 6.5 uH.

Did I get it right?

Thanks,
Dave S.

Mime-Version: 1.0 (Apple Message framework v734)
Content-Type: text/plain; charset=US-ASCII; format=flowed
Message-Id: <D7301E3E-6FCC-4324-A242-6EA99115EE5A@bellsouth.net>
Cc: Old Tube Radios <boatanchors@theporch.com>
Content-Transfer-Encoding: 7bit
From: Tom Norris <r390a@bellsouth.net>
Subject: Re: Gen X ers, off subject but closer to our lives than I like to think!
Date: Sat, 21 Jan 2006 16:21:22 -0600
To: Old Tube Radios <boatanchors@theporch.com>

Windows user, Tom???

heeheeheehee

73

Tom NU4G

On Jan 21, 2006, at 7:11 AM, Tom Rauch wrote:

>>

>

> I have a computer too. It programmed me to use words I
> never used before.

>

>

>

Date: Sat, 21 Jan 2006 19:03:02 -0500 (EST)
From: William Donzelli <aw288@osfn.org>
To: Old Tube Radios <boatanchors@theporch.com>
cc: boatanchors@theporch.com
Subject: Re: [Milsurplus] Tube Purge
Message-ID: <Pine.SUN.4.20.0601211857160.14803-100000@osfn.org>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

> Q*** 80 Yuck Minis 6BN6, and other odd 6 and 12 volt types

Aww, come on...don't leave these hanging!

There are some good tubes in this lot - just weird numbers. Remember that many of the boatanchor friendly tubes were upgrade two, three, maybe four times in the 1950s and 60s, and this lot is full of them. Someone claim this, and I will raise it to 100 tubes! And throw in a bonus or two! You will just have to look up all those funny numbers.

Anyway, the other lots are claimed. Many times over, in the case of the battery tubes! I will see how many orders I can fill tomorrow and let the winners know. If you do not hear from me, well, you did not win...sorry.

William Donzelli
aw288@osfn.org

Message-ID: <002b01c61ee8\$bfd0c0\$6501a8c0@akorn.net>
From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Changing A Tank to a New F: Is This Correct?
Date: Sat, 21 Jan 2006 19:14:01 -0500
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

> Looking to change a tank circuit used by a 6AQ5
> from resonance at 20 MHz to 3.8 MHz.
> Are these the right steps?
> 20 MHz tank capacitor = 50 pF
> 20 MHz tank inductor = about 1.25 uH
> Calculating capacitor Xc:
> $1 / (6.28 \times 20 \times 0.00005) = 159 \text{ ohms}$
> Calculating inductor Xl:
> $6.28 \times 20 \times 1.25 = 157 \text{ ohms (close enough)}$
> Calculating new capacitor
> that will do Xc about 159 ohms at 3.8 MHz:
> $1 / (6.28 \times 3.8 \times 0.00027) = 155 \text{ Ohms} = 270 \text{ pF}$
> Calculating new inductor
> that will resonate with Xl of about 155 ohms at 3.8 MHz:
> $155 / 6.28 \times 3.8 = 6.5 \text{ uH}$
> So- my new tank is 270 pF across 6.5 uH.

I'm very lazy, so I would just do:

$20 / 3.8 = 6.26$

Multiply the 6.26 times L and C values.

6.26 times 50pF = 313pF

6.26 time 1.25uH = 7.8uH

73, Tom W8JI

Message-ID: <20060122012013.45436.qmail@web54606.mail.yahoo.com>
Date: Sat, 21 Jan 2006 17:20:13 -0800 (PST)
From: "J.D. Mac Aulay, WQ8U" <jmac6235@yahoo.com>
Subject: Re: Gen X ers, off subject but closer to our lives than I like to think!
To: Old Tube Radios <boatanchors@theporch.com>
Cc: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=iso-8859-1
Content-Transfer-Encoding: 8bit

FWIW - true confessions of a Windows user:

When the MAC came out years ago our company bought a few, although the most common PC in the company was IBM. We had a crunch on a deliverable and the graphics, unfortunately, were on a MAC (that's where they are supposed to be, right?) The secretaries had gone home so two EEs and a company president attacked the MAC and couldn't figure out on the "intuitively obvious" MAC how to modify and print the graphics. So much for "intuitively obvious" - and MAC still hasn't improved. Maybe Steve should try to take the next step now that his computers are using INTEL and accept a universal business operating system - WINDOWS.

Thank goodness for tubes and boat anchors.

73
Mac
WQ8U

--- Tom Norris <r390a@bellsouth.net> wrote:

> Windows user, Tom???
>
> heeheeheehee
>
> 73
>

> Tom NU4G
>
> On Jan 21, 2006, at 7:11 AM, Tom Rauch wrote:
> >>
> >
> > I have a computer too. It programmed me to use
> words I
> > never used before.
> >
> >
> >
>
>

To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Date: Sat, 21 Jan 2006 23:18:34 -0500
Subject: Re: Really Weird TR-4C Problem
Message-ID: <20060121.231836.956.1.k4pf@juno.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
From: Edward Knobloch <k4pf@juno.com>

Hi,

You might try replacing the questionable tube socket.
Perhaps at one time a tube was socketed in it which had
a heater to cathode short. This would have overheated the socket pins,
resulting in loosening the grip on the heater and cathode tube pins
by spoiling the temper of the effected socket metal.

73,
Ed Knobloch

On Thu, 19 Jan 2006 David Stinson <arc5@ix.netcom.com> writes:

> Been working on refurbing a TR-4C.
> Lord, a lot can go wrong with one of these when it's
> been left in storage for a long time.
> This one has non-matched Sylvania 6JB6s in the PA.
> It won't neutralize or even come close, but that's
> not the "wierd" part. The tube closest to the
> front of the radio draws less than half the current
> of the other two. I've checked the screen resistors,
> screen voltages, the cathode resistors, resoldered
> the tube socket pins and grounds- all the obvious stuff.
> I've put one of the other tubes in that socket in

> case I had a "softer" tube, but it made no difference;
> the one near the front won't take a significant
> part of the total current. I'm flummuxed...
> Anyone have any ideas??
>
>
>

Message-ID: <004801c61f25\$edc1f440\$0302a8c0@Belkin>
From: "Brian Clarke" <brianclarke01@optusnet.com.au>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Changing A Tank to a New F: Is This Correct?
Date: Sun, 22 Jan 2006 18:31:56 +1100
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="-----_NextPart_000_0045_01C61F82.1FB987E0"

This is a multi-part message in MIME format.

-----=_NextPart_000_0045_01C61F82.1FB987E0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

Fraid that's not the end of it.
All both of you have done is achieve resonance.
Also need to consider the dynamic impedance of the=20
finished product to load the 6AQ5.
73 de Brian, VK2GCE.

-----=_NextPart_000_0045_01C61F82.1FB987E0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

* * * * *
* ---REMAINDER OF MESSAGE TRUNCATED--- *
* This post contains a forbidden message format *
* (such as an attached file, a v-card, HTML formatting) *
* Mail Lists at theporch.com only accept PLAIN TEXT *
* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *

-----=_NextPart_000_0045_01C61F82.1FB987E0--

Date: Sun, 22 Jan 2006 08:38:18 -0500 (EST)
From: stuck in 50s <polepeeg@ba-watch.org>

Message-Id: <200601221338.k0MDcIMu021204@fracas.netboobie.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Tank ckt. gymnastics

Yo Brian & 'tank man'

> all's u've done is achieve resonance...

right

If a tightly link coupled thing set into a resistor load, sq. of turns ratio gives link turns

Like audio output xfrmr.

6AQ5 w. 250V wants about 3k load I think. Sorta 50x 50 ohms for example.

So if tank 14 turns, link wud be 2 turns

But variable link coupling adjusts coupling coef.s IE changes 'turns ratio.*' Sic GI TCS & command tx.

If Pi net's in eqn., then new ball game

Marty

*if using link w. resistive load, link's Xl hasta be tuned out. Variable C in series w. link is all's needed.

Well known in '46, lost in '06... usual procedure today is clicking & whirring the Dentron 'til 'it loads.'

Sorta akin to 'bringing it up slow on variac' folkway

Date: Sun, 22 Jan 2006 08:30:48 -0600
From: David Stinson <arc5@ix.netcom.com>
Subject: Re: Changing A Tank to a New F: Is This Correct?
To: Old Tube Radios <boatanchors@theporch.com>
Cc: Old Tube Radios <boatanchors@theporch.com>
Message-id: <43D39718.6070900@ix.netcom.com>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii; format=flowed
Content-transfer-encoding: 7bit

Brian Clarke wrote:

Thanks for writing, Brian.

> Fraid that's not the end of it.
> All both of you have done is achieve resonance.
> Also need to consider the dynamic impedance of the
> finished product to load the 6AQ5.

OK, I determined the impedance of the original tank components (159 ohms) and calculated to use the same impedance at a different frequency. My thinking was that, minus "fudge factors" like tube and wiring capacitances, which, at HF, usually only amount small percentages of error one way or the other, that would provide an equivalent load to the 6AQ5 at the new frequency. The tank loads the output of an electron-coupled oscillator which was originally an oscillator/tripler. I'll probably need to change the bias point somewhat. I know "just enough to get in trouble," so please let me know what I'm missing.

The project is to change an ARC-type-12 VHF aircraft transmitter (which had already been modded) from a VHF set with osc/tripler-tripler-PA/doubler to an HF set with an Osc-untuned buffer-PA design. I'm making the buffer untuned to provide isolation so I don't end up with a big TPTG oscillator, and because without all the multiplication, I can get away with less gain in the chain. I know I'll have to lower the bias point on the two amp stages, since they're no longer multipliers.

Thanks again,
David S.

Message-ID: <43D39DAD.2030801@comcast.net>
Date: Sun, 22 Jan 2006 07:58:53 -0700
From: "Herbert M. Rosenthal" <herbrose@comcast.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: BoatAnchors <boatanchors@theporch.com>
Subject: Re: Gen X ers, off subject but closer to our lives than I like to think!
Content-Type: multipart/alternative;
boundary="-----040302030609000306030001"

This is a multi-part message in MIME format.
-----040302030609000306030001
Content-Type: text/plain; charset=us-ascii; format=flowed

Content-Transfer-Encoding: 7bit

You either love 'em (MAC) or hate em!

Re the 2 EEs and the president: tell them the next time they want to print on a MAC, just select a file and do a CONTROL P... it never fails! Of course one must have paper in the printer :-).

BTW-just bought an external case for a DVD ide/USB; six pages on how to install the PC driver, name the new driver, etc.... MAC instructions was: 1. Plug it in USB), 2. Turn it on, 3. Use it. Ho hum.

Herb W5AN

A proud MAC user since 1985

>

>

-----040302030609000306030001

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

```
* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
*      (such as an attached file, a v-card, HTML formatting) *
*      Mail Lists at theporch.com only accept PLAIN TEXT      *
*      If your postings display this message your mail program *
*      is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *
```

-----040302030609000306030001--

Message-Id: <6.2.1.2.2.20060122100410.022f8ab8@pop-server.nc.rr.com>

Date: Sun, 22 Jan 2006 10:05:21 -0500

To: Old Tube Radios <boatanchors@theporch.com>

From: john <johnmb@nc.rr.com>

Subject: Re: Gen X ers, off subject but closer to our lives than I like to think!

Cc: BoatAnchors <boatanchors@theporch.com>

Mime-Version: 1.0

Content-Type: text/plain; charset=us-ascii; format=flowed

At 09:58 AM 1/22/2006, Herbert M. Rosenthal wrote:

>BTW-just bought an external case for a DVD ide/USB; six pages on how to
>install the PC driver, name the new driver, etc.... MAC instructions was:

>1. Plug it in USB), 2. Turn it on, 3. Use it. Ho hum.

With XP, it's likely plug it in and turn it on...same as the Mac. Older versions of Windows did involve more hoop jumping...not so anymore!

--

No virus found in this outgoing message.

Checked by AVG Free Edition.

Version: 7.1.375 / Virus Database: 267.14.21/236 - Release Date: 1/20/2006

Message-ID: <43D3A351.4070202@cox.net>

Date: Sun, 22 Jan 2006 08:22:57 -0700

From: David Hollander <n7rk@cox.net>

MIME-Version: 1.0

To: Old Tube Radios <boatanchors@theporch.com>

CC: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: Gen X ers, off subject but closer to our lives than I like to think!

Content-Type: text/plain; charset=us-ascii; format=flowed

Content-Transfer-Encoding: 7bit

.....Of course they probably could not figure out how to turn it on either!

As I recall from the last job where I had "Windoze" forced on me, print was "control P", the same as on a mac which was where the command came from originally.

And let's talk about virus's on a PC and security holes in Internet Explorer.

Luv my Macintosh's and my boatanchors too!

Dave N7RK

"Another proud mac user since 1984"

--

Dave N7RK Boatanchors Home Page: <http://members.cox.net/n7rk>
Phoenix, Arizona *DXCC Honor Roll* *WAZ#22 - 75 Meter SSB*

ex-XE2/N7RK, N7RK/ZB2, VK2ERK, ZM0AJN, WB6NRK, WN6IWX

Boatanchor and Antique Radio Collector

Message-ID: <001301c61f73\$ec23b120\$6501a8c0@akorn.net>
From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Changing A Tank to a New F: Is This Correct?
Date: Sun, 22 Jan 2006 11:50:15 -0500
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

<Fraid that's not the end of it.
<All both of you have done is achieve resonance.
<Also need to consider the dynamic impedance of the
<finished product to load the 6AQ5.

We can assume the original designer did that, since it was a
working 20 MHz design.

The only thing lacking in scaling the components is the
effect of stray capacitances and inductances and unwanted
coupling to things like the sheet metal, but those effects
are almost certainly negligible in a low frequency move. If
he was moving from 144MHz to 58MHz , it wouldn't work. On
20MHz strays are probably a fairly small part of the overall
effect.

People get way too "constipated" in selecting network Q,
largely because they don't understand the effects of Q. For
example they strive for a precise Q of 12 in a tank like the
sky will fall when they don't even know that the way they
are told to calculate Q is wrong in 99% of the texts, and
that a change from a Q of 12 to 8 or 18 probably has no
measurable effect in the end results anyway.

I can make a science project out of tying my shoe laces if I
want.

73 Tom

Message-ID: <003601c61f75\$92658800\$6501a8c0@akorn.net>
From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Tank ckt. gymnastics
Date: Sun, 22 Jan 2006 12:02:04 -0500
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

> If a tightly link coupled thing set into a resistor load,
sq. of turns
> ratio gives link turns
>
> Like audio output xfrmr.

That's true enough if it is a link.
Everything should be scaled the same way.

If he increased coil turns by a factor of 3, the link
should scale the same.

But he only talked about changing a C and L, and there is no
reason to make an engineering project out of that.

73 Tom

Message-ID: <003c01c61f76\$63cb2ee0\$6501a8c0@akorn.net>
From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "Old Tube Radios" <boatanchors@theporch.com>
Subject: Re: Changing A Tank to a New F: Is This Correct?
Date: Sun, 22 Jan 2006 12:07:56 -0500
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

> OK, I determined the impedance of the original tank
> components (159 ohms) and calculated to use the same

> impedance at a different frequency. My thinking was that,
> minus "fudge factors" like tube and wiring capacitances,
> which, at HF, usually only amount small percentages
> of error one way or the other, that would provide
> an equivalent load to the 6AQ5 at the new frequency.
> The tank loads the output of an electron-coupled
oscillator
> which was originally an oscillator/tripler.
> I'll probably need to change the bias point
> somewhat. I know "just enough to get in trouble,"
> so please let me know what I'm missing.

Maybe I'm just stoopid, but I'd not mess with the bias or
anything unless required in a final operating test.

I assumed all you had was a parallel tuned network and a
small coupling cap to the next stage, and not any real
"matching" from the impedance in the sky to the impedance on
the ground going on.

I'd not make an engineering project out of something so
simple. If you have a problem the Edisonian method will
provide a solution work just fine.

73 Tom

End of BOATANCHORS Digest 3884
